

Sexual Health Advice given on Popular Web-based Magazine Sites targeting Adolescent Women

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Abstract

Adolescent women are at greatest risk for contracting sexually transmitted infections (STIs). Sexual risk behaviors are the most common cause of transmission of STIs in adolescent and young women. The primary source of information that adolescents will use for health information is the web; however, little is known about the type of content available on popular web sites specifically targeting adolescents. The purpose of this study was to examine the sexual advice posted on four popular magazine sites adolescent women frequent. Four web-based magazine sites were chosen based on rankings from amazon.com. An adaptation of PRISMA guidelines was used to guide the methods of this study. The word “sex” was typed into the search box on each website. All link titles appearing from the search were examined for inclusion into the study. Inclusion criteria were any advice or articles related to: 1) sexual health/STIs, 2) sexual/romantic relationship content, and 3) sexual behaviors. A total of 541 links were found and 158 met the inclusion criteria. Data analysis is in process. All data are being content analyzed using Neuendorf’s content analysis technique for types of advice presented around STIs, sexual health, sexual behaviors, and romantic relationships. Descriptive statistics will be used to summarize findings in each category.

Young people are contracting sexually transmitted diseases (STDs) at alarming rates. In 2013 young people ages 15-24 made up nearly half of the 20 million new STDs and adolescent women ages 15-19 gave birth to around 273,000 babies (Centers for Disease Control (CDC), 2013). A survey of high school students found that 47% had sexual intercourse and many of those did not use a condom (CDC, 2013). According to Pew Research Center (2012), about 95% of teens have access to the Internet. This is significant as 41% of young people ages 12 and older use the Internet to treat a health problems (Ybarra & Suman, 2006). In regards to sexual health, a study examining 29 websites displaying sexual health information, found deficiencies in all websites and none of the websites had complete information in all the areas of sexual health (Whiteley, 2009). What is not known is what more recent web pages are displaying and, specifically, web pages targeting younger adolescent women. The purpose of this study was to examine the types of sexual health content displayed on popular magazines websites targeting young adolescent women. This information will allow health care providers to know what sources provide factual information and work with patients to make informed sexual health decisions to decrease the incidence of STDs and unplanned pregnancy rates.

Literature Review

Adolescents today do not know a time with no Internet and technology is apart of their everyday lives. In fact, according to the Pew Research Center Teen Fact Sheet, 95% of teens aged 12-17 are online (2012). This makes way for many possibilities for online health information to be available to adolescents today, especially in the area of sexual health. Adolescents and young adults ages 15-24 make up nearly half of the 19 million sexually transmitted diseases (STDs) each year and in 2013, 46.8% of high school students had sexual intercourse (CDC, 2014). Further, 28% of teen girls (who are most at risk for STDs) are looking to the Internet as a means of obtaining information about sexual health (Kaiser Family Foundation, 2014). Kaiser Family Foundation also found that the rate of unintended teen pregnancy and STDs in the U.S. continues to be higher than in other developed countries and there is

great potential for the Internet to help adolescents make informed decision about their sexual health and decrease these rates.

The quality of information available on the Internet varies greatly, especially in the area of sexual health. According to a study of 29 websites, no sexual health website received a perfect score using the American Library Association Standards for Web Evaluation (Whitely, Mello, Hunt, & Brown, 2012). Nearly one in four adolescents have used the Internet to look up health information (Ybarra & Suman, 2012). In the same study, it was reported that 41% of young adults had used the Internet to treat a health problem (Ybarra & Suman). The findings from a study of 922 university students ages 18-24 in Ireland discovered that 66% of participants used the Internet to search for health information for a variety of reasons, including sexual health (Horgan & Sweeney, 2012). Horgan and Sweeney also found that 72% of participant used the Internet several times a day. The most common sexual health search topics included contraception, sexually transmitted diseases, erectile dysfunction, and pregnancy (Horgan & Sweeney,). Their conclusion was that health-related websites need to be properly established and assessed given how often they are used (Horgan & Sweeney).

Some studies have examined content. In a review of 21 websites displaying sexual health information, Noar and colleagues (2009) found that 24% were governmental websites, 33% were non-profit sites, and 43% were private sites. Most of the websites (86%) targeted teenagers and the main topics of discussion included STDs, pregnancy, and HIV/AIDS (Noar, Clark, Cole, & Lustria.). Nearly every website promoted condom use and all websites discussed the possibility of STDs as a way promote safer sexual practices (Noar et al.). The authors found a wide variability between the information on the websites and more studies need to be done to evaluate the quality of information on the Internet and the potential of e-health (Noar et al.). Similar conclusions were made in a systematic review of teen e-health websites and it was also concluded that healthcare professionals are actually at a disadvantage if they do not utilize the internet for their adolescent and teen patients (Paul, 2012). The ethnic disparities of health information are also of note. Since STDs disproportionately affect ethnic minorities as compared to whites, these

groups could greatly benefit from improved sexual health information on the Internet (STDs in Racial and Ethnic Minorities, CDC, 2012). According to cross-sectional survey of 3,181 women aged 16-24, more Caucasian and African Americans were likely to use the Internet for health Information than Hispanic individuals (Tabbasum & Berenson, 2013). It is also of note that African American and Hispanic women were more likely to look up information about pregnancy tests and STDs than Caucasian American women, who were more likely to look up information about contraception (Tabbasum & Berenson, 2013). Hence, ethnicity is a factor in the search of sexual health information . These studies looked at several websites, only a few have targeted adolescent web sites.

The number of teens affected by unintended pregnancy and STDs indicate the importance of providing accurate information. Since adolescents use the internet to access sexual health information at high rates of use, it is important to understand what types of information they are accessing and the accuracy of that information from an evidence-based perspective. The specific research question driving this study was: What are the themes of sexual health information displayed on these websites?

Methods

A qualitative design was employed to meet the purpose of this study to ascertain the major categories of sexual health information that were available on popular magazine web sites.

Inclusion and Exclusion Criteria

For a web page to be included in the study it must pertained to sexual health information. Pages were excluded if they did not specifically address health issues (i.e., television reviews, fictional book reviews) or if the content were related to intimate partner violence. This information will be analyzed at a later date.

Data Collection

The top magazines for adolescent women were ascertained after a search on Google and Amazon.com. The top rated magazines by readership were: *seventeen.com*, *girlslife.com*, *teenvogue.com*,

and *discoverygirls.com*. The word “sex” was placed in the search browser of each magazine website.

Table 1 shows the number of webpage hits for each journal.

Table 1

Number of “hits” by magazine

Web site	Number of “Hits”	Number of “Hits” meeting Inclusion Criteria
Seventeen.com	448	107
Girlslife.com	80	50
Teenvogue.com	10	1
Discoverygirls.com	1	0

Two researchers independently reviewed each website to determine if it met the inclusion criteria. Reasons for discarding the webpage from the study are listed below in Table 2. The rate of agreement in discarding websites was 100%.

Table 2

List of reasons why webpages were discarded by magazine website

	Seventeen	Girls Life	Discovery Girls	Teen vogue
TV show	39	4	1	7
Book/magazine review	4	9		
Celebrity	50	1		1
Sexual assault/ harassment	14	1		1
Music/songs	18	2		

Link to a survey/ quiz	29	2
Current events		4
Article “not found”/error		1
Repeat	12	1
Broken link		1
School		2
Non-romantic relationships		2
Advice (not sex-related)	40	
Story	98	
Sexual Orientation	8	
Tell us or Ask us about it	23	

Data Analysis

To analyze the major categories of sexual health information available a content analysis was performed. Two researchers analyzed the content of the webpages. One researcher experienced in content analysis categorized the topics by themes. A second researcher then examined the categories and sorted them into the different themed groups.

Results

The purpose of this study was to ascertain the major categories of sexual health information presented on magazine websites targeting adolescent women. Table 3 shows the major topics of these articles and then places the articles into subcategories. The major topics are as follows: sexual myths, communication with parents, relationships with guys, sexual pressure/violence, gynecologic/physiologic health, STD/sexual risk, condoms, and contraception. The “sexual myths” section addresses various rumors common to teens about sex, such as different ways to get pregnant and when girls have their first sexual encounter. Many articles were advice pieces that involved girls writing to *Seventeen* online to ask

questions. For example, a 16 year-old adolescent from Ohio wrote in asking if she could pregnant from having oral sex with her boyfriend (Article 3). The advice from *Seventeen's* "sexpert" explained the only way to get pregnant is through vaginal sex, but it is still possible to get STDs from oral sex.

In the area of "communication with parents", the range of subtopics includes how to communicate with parents about being pregnant and talking about sex with parents. These articles also involved girls writing in for advice and general advice articles. For instance, a 16 year-old girl wrote in asking, "How do I tell my parents and my boyfriend that I'm pregnant?" (Article 70). The advice discusses how it is important to tell her parents and boyfriend about being pregnant as soon as possible and also briefly discusses healthy relationships. Another article gives tips on how to bring up the topic of sex with parents and why open communication lines are more beneficial than being secretive about sexual behavior (Article 2). Also, within topic of "relationships with guys", articles communicating with partner about sex and how to tell if a guy wants a relationship with you. A 17 year old wrote in asking how to bring up sex with her boyfriend saying, "Everyone says to plan ahead about sex, but I don't know how to bring it up with my boyfriend. How should I do it? What should I say?" (Article 2). The advice then discusses the importance of having conversations about sex and its risks, even though it may not easy. Another girl wrote in asking, "I've liked this guy since the second week of school/ but found out that he likes another girl. When I see them together, I never see him flirting with her. But when he's with me, all he does is flirt. What's going on?" (Article 72). This advice discusses how to have a conversation with this guy and how to tell if he actually likes her not. These articles have the potential to teach young girls about healthy relationships communication as well as what conversations are important to have with their significant others.

Also, under the "sexual pressure" topic, these articles discussed a range of issues from maintaining virginity to identifying different ways guys may try to avoid using protection. In another advice article, a few girls wrote in to ask about what sex feels like and how long she should wait to have sex with a significant other (Article 42). The advice given in this article parallels the other articles by saying that

open communication is a necessity for a healthy sexual relationship and it is also important to discuss the risks of having sex. For instance, an article titled, “No Excuses: Beware of these lines guys use to get sex!” (Article 33) discusses lines guys may use such as “You’re on the pill. We don’t need a condom” and “wearing a condom means you don’t trust me”. It also offers ideas for how to respond to these statements to keep girls safe and informed. In the next major theme, “gynecologic health/physiologic health”, there was an array of subtopics to offer advice to young girls about their bodies. These subtopics include urinary tract infections and provide resources for pregnant teens. The articles in this topic include more advice articles including questions such as, “Ever since I started having sex I get urinary tract infections very frequently. Does that mean there could be something else wrong?” (Article 45). The advice for this question is factual and provides tips such as voiding before and after sex and wiping from front to back (Article 37). The resources for pregnant teens include a link to a teen pregnancy prevention website, stayteen.org, as well as links to common questions about teen pregnancy and how to prevent teen pregnancy (Article 37).

The next major theme, “STDs/sexual risk,” involves educating readers on the various types of STDs and how STDs are transmitted. In an article, “The Truth About STDs”, all the STDs are described and the ways to get treatment are also included (Article 24). The STDs covered are genital HPV, chlamydia, gonorrhea, genital herpes, trichomoniasis, crabs, and HIV. Other articles about how STDs are transmitted include a 17-year-old girl asking, “If you have cold sores on your mouth when giving oral sex, can your partner contract genital herpes?” (Article 3). The advice for this question goes through the basics of the different types of herpes and the importance of using a dental dam for oral sex to prevent the spread of STDs. The next theme is “condoms” and the subthemes for this are: how to use condoms, expectations around condoms, carrying condoms, and trouble shooting common issues in using condoms. An example of an article for this section includes a 17-year-old girl from Massachusetts asking, “If I am planning on having sex, should I bring a condom, or should I expect him to have one?” (Article 65). The advice for this article highlights the importance of the girl asking for the advice taking control of her own health and includes

where she can buy condoms or get them for free. Another advice article answers the question from two girls from California, ""If you're having sex and the condom falls off and gets stuck in your cervix and you can't get it out for a while, will it get moldy?" (Article 101). The answer for this question says while it is good the girls are wearing condoms, if the condom gets stuck they will need to see their doctor to remove it and prevent infection.

The last major theme identified in this study was "contraception". This covers an array of topics: the best time to have sex during menstrual cycle (rhythm method), condoms as contraception or use in conjunction with contraception (dual method), emergency contraception, withdrawal as a form of contraception, abortion, and the safety of various contraceptive methods. Articles include information on the "Plan B" or "morning-after" pill and how the availability of the drug has changed to over-the-counter (Article 41). This article also discusses why relying on "Plan B" is not a reliable form of birth control. Another article from this theme is titled, "Which Pill is Right for you?" (Article 56). It goes over how birth control works, how to take birth control pills, and why it is important not to skip a dose. There was also an overarching theme in many of the articles promoting the dual method (using condoms as well as contraception).

Table 3

Themes and Topics of Sexual health Information on Magazine Web Sites

Major Themes Identified	Topics under Each Theme from Data
1. Sexual myths	What guys really think about sex Masturbation Different ways to get pregnant First sexual encounters – when most girls have them Sex naturally follows falling in love Guys will break up with women if they don't have sex with them Having sex is part of growing up and is necessary to become a woman Normal amount to think about sex Virginity/delaying sexual intercourse Obesity – harder to get pregnant
2. Communication with parents	Initiating sexual intercourse Discussion birth control Discussing condoms Communicating with parents who refuse to communicate about sexual matters Communicating that you know about sex Telling parents about having an STD Telling parents about being pregnant Purity balls/pledges with parents
3. Relationships with guys	Talking about/initiating sex/relationship moving too slow Initiating a relationship Not ready for sex/saying no to sex Communicating with partner in general Communicating needs in a relationship Electronic communication Just being a friend with no romantic expectations How to tell he wants to have a relationship Dating in secret Age differences in relationships What to do if a guy is using you Mixed messages (friend or romantic partner) Asking guys out Long distance dating Cheating/extra-dyadic relationships Hooking up/casual sex

Table continues

Table 3

Themes and Topics of Sexual health Information on Magazine Web Sites (Continued)

Major Themes Identified	Topics under Each Theme from Data
4. Sexual pressure	<p>How to communicate with sexual partners regarding sexual pressure</p> <p>What to do if the pressure persists</p> <p>Sending sexual pictures</p> <p>Maintaining virginity</p> <p>Different lines guys may use to not use condoms/have sex</p> <p>Bad reputation/rumors around sexual relationships</p>
5. Gynecologic/Physiologic Health	<p>What is an orgasm</p> <p>Pain during intercourse</p> <p>Shaving pubic hair</p> <p>Vaginal discharge/odor</p> <p>Sex during menstruation</p> <p>What do lumps/bumps mean</p> <p>Normal anatomy</p> <p>Bleeding after sex</p> <p>What to do if you think you are pregnant</p> <p>How did I get pregnant</p> <p>Resources for pregnant teens</p> <p>Urinary tract infections</p> <p>Overweight/obesity and gynecological issues</p> <p>Pregnancy rates in US</p>
6. STDs/Sexual Risk	<p>Signs/symptoms</p> <p>Various STDS</p> <p>How to get tested for STDs</p> <p>Sex and alcohol</p> <p>How STDs are transmitted</p> <p>STD rates in US</p>
7. Condoms	<p>How to use condoms</p> <p>Expectations around condoms</p> <p>Carrying condoms</p> <p>Trouble shooting common issues in using condoms</p>
8. Contraception	<p>Best time to have sex during menstrual cycle (rhythm method)</p> <p>Condoms as contraception or use in conjunction with contraception (dual method)</p> <p>Emergency contraception</p> <p>Withdrawal as a form on contraception</p> <p>Abortion</p> <p>Safety of various contraceptive methods</p>

Discussion

To our knowledge this is the first in-depth examination of sexual health content on adolescent magazine websites. As like their older counterparts (Horgan & Sweeney, 2012) younger adolescent women from their questions were concerned about pregnancy and STDs; however, they also had special concerns not usually reported by older individuals such as communication with parents, specific questions about dating, and sexual myths.

While the knowledge gained from this study provides initial information to healthcare providers, much more information is needed prior to changing practice. The study must be viewed in light of its limitations, which include only popular magazine websites; hence, other websites adolescent women seek for information may have different findings. This is the first step in a series of analyses of these websites. The next steps will be to examine the frequency of content in order to understand the prevalence of concern (related to inquiries from adolescents) and prioritization of content from the magazine's viewpoint. The second analyses will determine evidence-based accuracy.

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